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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,470	09/16/2003	Jan-Erik Ekberg	4208-4148	9617

27123 7590 05/27/2008  
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EXAMINER
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HO, HUY C

ART UNIT	PAPER NUMBER
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2617

NOTIFICATION DATE	DELIVERY MODE
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05/27/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/662,470	<b>Applicant(s)</b> EKBERG, JAN-ERIK	
	<b>Examiner</b> HUY C. HO	<b>Art Unit</b> 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-11, 13-22, 24-30, 32-38 and 40-51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-11, 13-22, 24-30, 32-38 and 40-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed 02/27/2008 have been fully considered but they are not persuasive.

The argued features, i.e., An apparatus, comprising a memory device, a processor, the processor conducts an inquiry to discover at least one nearby device in an ad-hoc network, the inquiry result includes an indication that said at least one nearby device may include a middleware layer, said middleware layer comprising a middleware software for providing application and service discovery; create a wireless short-range connection to said at least one nearby device; and confirm said at least one nearby device includes the middleware layer by requesting corresponding information from said at least one nearby device via the wireless short-range connection; when said at least one nearby device includes the middleware layer, initiating wireless message exchange with said at least one nearby device to conduct middleware-based application and service information exchange for determining whether at least one target device supporting a required application or service is accessible in the ad-hoc network, the application and service information including distributed information, wherein the distributed information comprises information exchanged and circulated amongst devices in the ad-hoc network, read upon Nidd, Beck, Hermann, and Smith as follows.

Nidd teaches a method and system for performing service discovery in a pervasive network such as an ad hoc network, where Nidd teaches a wireless network device performs access connection to a remote device, establishing a connection for retrieving information regarding to available services supported by the remote device service in the ad hoc network (see the abstract, sections [20]-[23]). The devices in the pervasive network discovers one another and exchange information related to supported services by using combination of software and hardware module such as service discovery profile SDP, connection transport service, link management protocol, Bluetooth protocols (see sections [39]-[44]), Thus Nidd discloses an apparatus, comprising a memory device, a processor, the processor conducts an inquiry to discover at least one nearby device in an ad-hoc network, the inquiry result includes an indication that said at least one nearby device, a layer comprising a software for providing

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application and service discovery; create a wireless short-range connection to said at least one nearby device; and confirm said at least one nearby device includes the layer by requesting corresponding information from said at least one nearby device via the wireless short-range connection; when said at least one nearby device includes the layer, initiating wireless message exchange with said at least one nearby device to conduct application and service information exchange for determining whether at least one target device supporting a required application or service is accessible in the ad-hoc network, the application and service information including distributed information, wherein the distributed information comprises information exchanged and circulated amongst devices in the ad-hoc network.

Nidd does not show the middleware layer for providing application and service discovery. Beck teaches a method and system for computing devices in a wireless network (can be an ad hoc network) to discover and use services among them by the aid of middleware, which enables these devices to discover, advertise and use services (see the abstract, col 2 lines 45-55).

Since Nidd and Beck teach method and system for service discovery, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify teachings of Nidd, and have the middleware layer for providing application and service discovery, taught by Beck to improve the method and system discussed by Nidd (see sections [1]-19]), thus Nidd, as modified by Beck, discloses the middleware layer for providing application and service discovery.

As a result, the argued features were written such that they read upon the cited references.

### ***Specification***

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter . See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: "medium" in "computer readable medium" of claims 47 and 50 and dependent claims thereof is not clearly defined in the Specification of the Application.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. **Claims 2-6, 9-11, 13-17, 20-22, 24-25, 28-30, 45-47** are rejected under 35 U.S.C.103(a) as being unpatentable over **Nidd (2002/0120750)** and further in view of **Beck et al. (6,604,140)**.

**Consider claim 45, (NEW)** Nidd discloses an apparatus, comprising:

a memory device (sections [1], [20], [25]); and

a processor disposed in communication with the memory device (sections [1], [20], [25]), the processor configured to:

conduct an inquiry to discover at least one nearby device in an ad-hoc network, an inquiry result including an indication that said at least one nearby device providing application and service discovery ([12],[20]-[23], [44]);

create a wireless short-range connection to said at least one nearby device ([2]-[5],

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[39]-[42]); and

initiate wireless message exchange with said at least one nearby device to conduct application and service information exchange determining whether at least one target device supporting a required application or service is accessible in the ad-hoc network, the application and service information including distributed information ([3]-[5], [11]-[13]);

wherein the distributed information comprises information exchanged and circulated amongst devices in the ad-hoc network ([42]-[43], [45]).

Nidd does not show the middleware layer for providing application and service discovery. Beck teaches a method and system for computing devices in a wireless network (can be an ad hoc network) to discover and use services among them by the aid of middleware, which enables these devices to discover, advertise and use services (see the abstract, col 2 lines 45-55).

Since Nidd and Beck teach method and system for service discovery, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify teachings of Nidd, and have the middleware layer for providing application and service discovery, taught by Beck to improve the method and system discussed by Nidd (see sections [1]-[19]).

**Consider claim 46, (NEW)** Nidd discloses a method, comprising:

conducting an inquiry to discover at least one nearby device in an ad-hoc network, an inquiry result including an indication that said at least one nearby device providing application and service discovery ([12],[20]-[23], [44]);

creating a wireless short-range connection to said at least one nearby device ([2]-[5], [39]-[42]); and

initiate wireless message exchange with said at least one nearby device to conduct application and service information exchange for determining whether at least one target device supporting a required application or service is accessible in the ad-hoc network, the application and service information including distributed information ([3]-[5], [11]-[13]);

wherein the distributed information includes (i) at least one reference to a required service,

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(ii) an association between each reference and one of said at least one target device, and (iii) state information about said at least one target device ([42]-[43], [45]).

Nidd does not show the middleware layer for providing application and service discovery. Beck teaches a method and system for computing devices in a wireless network (can be an ad hoc network) to discover and use services among them by the aid of middleware, which enables these devices to discover, advertise and use services (see the abstract, col 2 lines 45-55).

Since Nidd and Beck teach method and system for service discovery, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify teachings of Nidd, and have the middleware layer for providing application and service discovery, taught by Beck to improve the method and system discussed by Nidd (see sections [1]-19)).

**Consider claim 47, (NEW)** Nidd discloses a computer program product, executable in a computer system, comprising a computer readable medium comprising:

program code for conducting an inquiry to discover at least one nearby device in an ad-hoc network, an inquiry result including an indication that said at least one nearby device providing application and service discovery ([12],[20]-[23], [44]);

program code for creating a wireless short-range connection to said at least one nearby device ([2]-[5], [39]-[42]);

program code for initiating wireless message exchange with said at least one nearby device to conduct application and service information exchange for determining whether at least one target device supporting the required application or service is accessible in the ad-hoc network, the application and service information including distributed information ([3]-[5], [11]-[13]);

wherein the distributed information includes (i) at least one reference to a required service, (ii) an association between each reference and one of said at least one target device, and (iii) state information about said at least one target device([42]-[43], [45]).

Nidd does not show the middleware layer for providing application and service discovery. Beck teaches a method and system for computing devices in a wireless network (can be an ad hoc network)

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to discover and use services among them by the aid of middleware, which enables these devices to discover, advertise and use services (**see the abstract, col 2 lines 45-55**).

Since Nidd and Beck teach method and system for service discovery, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify teachings of Nidd, and have the middleware layer for providing application and service discovery, taught by Beck to improve the method and system discussed by Nidd (**see sections [1]-[19]**).

**Consider claims 2, 13, (Currently Amended)** The apparatus system of claims 45 4, 46 12, Nidd, as modified by Beck, further discloses wherein a density of said at least one nearby device over a coverage area for the ad-hoc communications network is high (**sections [1], [19]**).

**Consider claims 3, 14, 24, (Currently Amended)** The apparatus system of claims 45 4, 46 12, 47 23, Nidd, as modified by Beck, further discloses wherein the distributed information includes at least one information record, each information record including at least one of device information or application information (**sections [42]-[43], [45]**).

**Consider claims 4, 15, (Currently Amended)** The apparatus system of claims 3, 14, Nidd, as modified by Beck, further discloses wherein the device information includes state information, an address, a friendly name, a hop count, a sequence number, a time value, and a time counter (**sections [42]-[43], [45]**).

**Consider claims 5, 16, (Currently Amended)** The apparatus system of claims 3, 14, Nidd, as modified by Beck, further discloses wherein the application information includes an application identifier, capability information, version information, state information, an address, a hop count, a sequence number, a time value, and a time counter (**sections [42]-[43], [45], [55]**).

**Consider claims 6, 17, 25, (Currently Amended)** The apparatus system of claims 3, 14, 24, Nidd, as modified by Beck, further discloses wherein when the peer device includes the middleware layer, the processor is further configured to:

store the disclosed information in a portion of the memory device (**sections [12]-[13]**),

wherein the portion includes at least one record (**sections [12]-[13]**).



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**Consider claims 9, 28, (Currently Amended)** The ~~apparatus system~~ of claims ~~45 4, 47 23~~, Nidd, as modified by Beck, further discloses wherein a portion of the memory device includes exchanged information that identifies at least one application or service that said at least one nearby device supports (sections [12], [20], [42]).

**Consider claim 10, (Currently Amended)** The ~~apparatus system~~ of claim 9, Nidd, as modified by Beck, further discloses wherein when receiving an inquiry request from one of said at least one nearby device, the processor is further configured to:

distribute the exchanged information as part of a service discovery response (sections [12], [20], [42]).

**Consider claims 11, 22, 30, (Currently Amended)** The ~~apparatus system~~ of claims ~~45 4, 46 42, 47 23~~, Nidd, as modified by Beck, further discloses wherein when the peer device includes the middleware layer, the processor is further configured to:

establish a link connection to one of said at least one target device (sections [5], [8]); and  
access the requested service (sections [13], [44]).

**Consider claim 20, (Currently Amended)** The ~~apparatus system~~ of claim ~~46 42~~, Nidd, as modified by Beck, further discloses wherein a portion of the memory device includes exchanged information that identifies at least one application or service that said at least one nearby device supports (sections [44]-[45]).

**Consider claims 21, 29, (Currently Amended)** The ~~apparatus system~~ of claims 20, 28, Nidd, as modified by Beck, further discloses wherein when receiving an inquiry request from one of said at least one nearby device, the method further comprises:

distributing the exchanged information as part of a service discovery response (section [62]).

**6. Claims 32-34, 36-38, 40-41, 43-44 and 48-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nidd (2002/0120750), in view of Beck et al. (6,604,140) and further in view of Hermann et al. (6,633,757).**

**Consider claim 48, (NEW)** Nidd discloses an apparatus, comprising:

a memory device (sections [1], [20], [25]); and

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a processor disposed in communication with the memory device (sections [1], [20], [25]), the processor configured to:

a distributed database to associate each at least one service to the least one device in an ad hoc network ([42]-[43], [45]);

conducting an inquiry to discover at least one nearby device in an ad-hoc network, an inquiry result including an indication that said at least one nearby device providing application and service discovery ([12],[20]-[23], [44]);

access the distributed database to determine whether said at least one nearby device includes a required service in response to receiving the indication ([42]-[43], [45]);

create a wireless short-range connection to said at least one nearby device ([2]-[5], [39]-[42]); and

initiate wireless message exchange with said at least one nearby device to conduct application and service information exchange for determining whether at least one target device supporting the required application or service is accessible in the ad-hoc network, the application and service information including distributed information ([3]-[5], [11]-[13]);

wherein the distributed information comprises information exchanged amongst devices in the ad-hoc network ([42]-[43], [45]).

Nidd does not show the middleware layer for providing application and service discovery. Beck teaches a method and system for computing devices in a wireless network (can be an ad hoc network) to discover and use services among them by the aid of middleware, which enables these devices to discover, advertise and use services (see the abstract, col 2 lines 45-55).

Since Nidd and Beck teach method and system for service discovery, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify teachings of Nidd, and have the middleware layer for providing application and service discovery, taught by Beck to improve the method and system discussed by Nidd (see sections [1]-[19]).

Nidd, as modified by Beck, does not show maintaining of the distributed database to associate services to devices in an ad hoc network. Hermann teaches a scheme and apparatus for service

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discovery, where Hermann specifically discloses an apparatus maintains a record with information about services and associated identifiers of other neighbor devices in a network (**see the abstract, col 4 lines 38-65**), thus Hermann discloses maintaining of the distributed database to associate services to devices in an ad hoc network.

Nidd, Beck and Hermann teach method and system for service discovery in a wireless communication network, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify teachings of Nidd, as modified by Beck, and have maintaining of the distributed database to associate services to devices in an ad hoc network, taught by Hermann to improve the method and system discussed by Nidd (**see sections [1]-[19]**).

**Consider claim 49, (NEW)** Nidd discloses a method, comprising:

a distributed database to associate at least one service to at least one device in an ad hoc network (**[42]-[43], [45]**);

conducting an inquiry to discover at least one nearby device in an ad-hoc network, an inquiry result including an indication that said at least one nearby device providing application and service discovery (**[12],[20]-[23], [44]**);

access the distributed database to determine whether said at least one nearby device includes a required service in response to receiving the indication (**[42]-[43], [45]**);

creating a wireless short-range connection to said at least one nearby device (**[2]-[5], [39]-[42]**); and

initiate wireless message exchange with said at least one nearby device to conduct application and service information exchange for determining whether at least one target device supporting the required application or service is accessible in the ad-hoc network, the application and service information including distributed information (**[3]-[5], [11]-[13]**);

wherein the distributed information includes (i) at least one reference to a required service, (ii) an association between each reference and one of said at least one target device, and (iii) state information about said at least one target device (**[42]-[43], [45]**).

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Nidd does not show the middleware layer for providing application and service discovery. Beck teaches a method and system for computing devices in a wireless network (can be an ad hoc network) to discover and use services among them by the aid of middleware, which enables these devices to discover, advertise and use services (**see the abstract, col 2 lines 45-55**).

Since Nidd and Beck teach method and system for service discovery, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify teachings of Nidd, and have the middleware layer for providing application and service discovery, taught by Beck to improve the method and system discussed by Nidd (**see sections [1]-19**).

Nidd, as modified by Beck, does not show maintaining of the distributed database to associate services to devices in an ad hoc network. Hermann teaches a scheme and apparatus for service discovery, where Hermann specifically discloses an apparatus maintains a record with information about services and associated identifiers of other neighbor devices in a network (**see the abstract, col 4 lines 38-65**), thus Hermann discloses maintaining of the distributed database to associate services to devices in an ad hoc network.

Nidd, Beck and Hermann teach method and system for service discovery in a wireless communication network, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify teachings of Nidd, as modified by Beck, and have maintaining of the distributed database to associate services to devices in an ad hoc network, taught by Hermann to improve the method and system discussed by Nidd (**see sections [1]-19**).

**Consider claim 50, (NEW)** Nidd discloses a computer program product, executable in a computer system, comprising

a computer readable medium comprising :

program code for a distributed database to associate at least one service to at least one device in an ad hoc network([42]-[43], [45]);

program code for conducting an inquiry to discover at least one nearby device in an ad-hoc network, an inquiry result including an indication that said at least one nearby device providing application and service discovery ([12],[20]-[23], [44]);

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program code for creating a wireless short-range connection to said at least one nearby device ([2]-[5], [39]-[42]);

program code for initialing wireless message exchange with said at least one nearby device to conduct application and service information exchange ([3]-[5], [11]-[13]); and

program code for accessing the distributed database to determine whether a least one target device supporting a required application or service is accessible in the ad-hoc network, the application and service information including distributed information ([42]-[43], [45]);

wherein the distributed information includes (i) at least one reference to a required service, (ii) an association between each reference and one of said at least one target device, and (iii) state information about said at least one target device ([42]-[43], [45]).

Nidd does not show the middleware layer for providing application and service discovery. Beck teaches a method and system for computing devices in a wireless network (can be an ad hoc network) to discover and use services among them by the aid of middleware, which enables these devices to discover, advertise and use services (**see the abstract, col 2 lines 45-55**).

Since Nidd and Beck teach method and system for service discovery, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify teachings of Nidd, and have the middleware layer for providing application and service discovery, taught by Beck to improve the method and system discussed by Nidd (**see sections [1]-[19]**).

Nidd, as modified by Beck, does not show maintaining of the distributed database to associate services to devices in an ad hoc network. Hermann teaches a scheme and apparatus for service discovery, where Hermann specifically discloses an apparatus maintains a record with information about services and associated identifiers of other neighbor devices in a network (**see the abstract, col 4 lines 38-65**), thus Hermann discloses maintaining of the distributed database to associate services to devices in an ad hoc network.

Nidd, Beck and Hermann teach method and system for service discovery in a wireless communication network, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify teachings of Nidd, as modified by Beck, and have maintaining of

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the distributed database to associate services to devices in an ad hoc network, taught by Hermann to improve the method and system discussed by Nidd (**see sections [1]-19**)).

**Consider claim 51, (NEW)** Nidd discloses an apparatus, comprising:

a memory device (**sections [1], [20], [25]**);

a processor disposed in communication with the memory device (**sections [1], [20], [25]**);

means for a distributed database to associate each at least one required service to at least one nearby device in an ad hoc network (**[42]-[43], [45]**);

means for program code for conducting an inquiry to discover at least one nearby device in an ad-hoc network, an inquiry result including an indication that said at least one nearby device providing application and service discovery (**[12],[20]-[23], [44]**); means for creating a wireless short-range connection to said at least one nearby device (**[2]-[5], [39]-[42]**);

means for initiate wireless message exchange with said at least one nearby device to conduct application and service information exchange for determining whether at least one target device supporting the required application or service is accessible in the ad-hoc network, the application and service information including distributed information (**[3]-[5], [11]-[13]**);

wherein the distributed information comprises information exchanged amongst devices in the ad-hoc network (**[42]-[43], [45]**).

Nidd does not show the middleware layer for providing application and service discovery. Beck teaches a method and system for computing devices in a wireless network (can be an ad hoc network) to discover and use services among them by the aid of middleware, which enables these devices to discover, advertise and use services (**see the abstract, col 2 lines 45-55**).

Since Nidd and Beck teach method and system for service discovery, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify teachings of Nidd, and have the middleware layer for providing application and service discovery, taught by Beck to improve the method and system discussed by Nidd (**see sections [1]-19**)).

Nidd, as modified by Beck, does not show maintaining of the distributed database to associate services to devices in an ad hoc network. Hermann teaches a scheme and apparatus for service

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discovery, where Hermann specifically discloses an apparatus maintains a record with information about services and associated identifiers of other neighbor devices in a network (**see the abstract, col 4 lines 38-65**), thus Hermann discloses maintaining of the distributed database to associate services to devices in an ad hoc network.

Nidd, Beck and Hermann teach method and system for service discovery in a wireless communication network, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify teachings of Nidd, as modified by Beck, and have maintaining of the distributed database to associate services to devices in an ad hoc network, taught by Hermann to improve the method and system discussed by Nidd (**see sections [1]-19**).

**Consider claims 32, 36, 40, 43, (Original) The system of claims 48 34, 49 35, 50 39, 51 42,** Nidd, as modified by Beck and Hermann, discloses wherein the processor is further configured to:

establish a link connection with said at least one nearby device if the distributed database includes an association between said at least one nearby device and the required service (**Hermann, col 4 lines 36-67, col 5 lines 1-10**).

**Consider claims 33, 37, (Original) The system of claims 32, 36, Nidd, as modified by Beck and Hermann, further discloses wherein the distributed database includes at least one reference to the required service and an association between said at least one reference and one of said at least one target device (sections [43]-[44]).**

**Consider claims 34, 38, 41, 44, (Original) The system of claims 48 34, 49 35, 50 39, 51 42,** Nidd, as modified by Beck and Hermann, discloses wherein the processor is further configured to:

decline a link connection with said at least one nearby device if the distributed database indicates that said at least one nearby device does not include the required service (**Hermann, col 5 lines 9-15**).

**6. Claims 7-8, 18-19 and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nidd (2002/0120750), in view of Beck et al. (6,604,140) and further in view of Smith et al. (2003/0006911).**

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**Consider claims 7, 18, 26 (Currently Amended)** The ~~apparatus system~~ of claims 6, 17, 25, wherein when the portion of the memory device is full, to store the disclosed information, the processor is further configured to:

Nidd, as modified by Beck, further discloses identify an oldest record of said at least one record (sections [43]-[44]); and

a new information record from said at least one information record (sections [43]-[44]),

Nidd does not show overwrite the oldest record. Smith discloses overwrite old data (see sections [110], [113]).

Since both Nidd, Beck and Smith teach data communication network and devices and method thereof, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify teachings of Nidd, modified by Beck, and have overwrite old data, taught by Smith, to improve the system discussed by Smith (see sections [2]-[7]).

**Consider claims 8, 19, 27 (Currently Amended)** The ~~apparatus system~~ of claims 6, 17, 25, wherein when the portion of the memory device is full, to store the disclosed information, the processor is further configured to:

Nidd, as modified by Beck, further discloses identify an old record of said at least one record (sections [43]-[44]);

identify a new information record from said at least one information record, the new information record being a replacement for the old record (sections 43]-[44]);

Nidd does not show overwrite the oldest record. Smith discloses overwrite old data (see sections [110], [113]).

Since both Nidd, Beck and Smith teach data communication network and devices and method thereof, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify teachings of Nidd, modified by Beck, and have overwrite old data, taught by Smith, to improve the system discussed by Smith (see sections [2]-[7]).



***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUY C. HO whose telephone number is (571)270-1108. The examiner can normally be reached on Monday - Friday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on 571-272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Duc Nguyen/  
Supervisory Patent Examiner, Art Unit 2617

